

Abstract of the Disclosure

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The present invention provides a disc type eccentric rotor having at least two
air-core coils, the rotor comprising a flat type commutator member having a shaft
insertion through hole in the center thereof, a plurality of commutator land segments
5 formed around the shaft insertion through hole on a first side of the flat type
commutator member, wound type air-core coil arrangement guides formed around
the shaft insertion through hole on a second side of the flat type commutator
member, air-core coil end portion connection lands formed circumferentially on the
second side of the flat type commutator member, a shaft holder installed around the
10 shaft insertion through hole on the second side of the flat type commutator member,
and wound type air-core coils installed at the wound type air-core coil arrangement
guides and having the end portions thereof connected to the air-core coil end portion
connection lands. The air-core coils of bigger sizes are uniformly arranged on the
commutator member, so that high efficiency and easy installation can be obtained.
15 The arrangement of the air-core coils offsets the center of gravity from the
geometrical centroid of the rotor, and there is no need for an additional eccentric
member. Otherwise, since the printed wiring type air-core coil is thinner than the
wound type air-core coil, an eccentric weight is installed on the printed wiring type
air-core coil so that a great amount of vibration may be obtained during rotation of
20 the rotor.